Assertive Community Treatment for Parents with Serious Mental Illnesses: A Comparison of "Parent-Sensitive" Assertive Community Treatment Teams versus Other Teams

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Abstract

Objective: Assertive Community Treatment (ACT) is an evidence-based practice for individuals living with serious mental illnesses. Although studies estimate at least half of people with serious mental illnesses are parents, little is known about ACT policies and services for parent consumers. *Methods:* Seventy-three ACT providers from 67 teams completed a survey about treatment services for parent consumers. Teams were divided into parent-sensitive and non-sensitive teams based on three indicators of parent-related services: identifying parental status, discussing parenting issues, and assisting with parenting needs. For each treatment indicator, teams were compared to determine factors that may contribute to parent-supportive treatment. *Results:* Providers from parent-sensitive teams that consistently identified consumers' parental status were more likely to talk with consumers about committed relationships and to assist consumers with parent-child communication. Parent-sensitive teams that frequently discussed parenting issues with consumers were less likely to be unsure of consumers' family plans, more likely to find out about parenting during goal setting, and more likely to assist with parent-related needs. Parent-sensitive teams that frequently provided assistance with parenting needs were more likely to serve minority consumers and consumers who want children, spend more time discussing parenting issues, and offer specialized programs/services for parent consumers. *Conclusions and Implications for Practice:* Findings suggest that simply identifying consumers as parents is not sufficient for ensuring consistent provision of parent-supportive services, whereas discussing parenting issues is associated with increased service provision. More intensive, evidence-based parent-supportive services are needed, as well as continued research on parents with mental illness and available treatment services.

Keywords: Assertive Community Treatment; Serious Mental Illness; Parents with Serious Mental Illnesses; Parenting Issues; Parenting Needs

Assertive Community Treatment for Parents with Serious Mental Illnesses: A Comparison of "Parent-Sensitive" Assertive Community Treatment Teams versus Other Teams

Evidence-based treatment programs for people living with serious mental illnesses are available to successfully address a variety of consumer needs, such as medication management, housing, and employment (Bond, Drake, Mueser, & Latimer, 2001). However, most current treatments do not regularly address the unique challenges facing those with serious mental illnesses who are parents (Mowbray, Oyserman, Bybee, MacFarlane, & Rueda-Riedle, 2001), despite evidence that people with serious mental illnesses tend to marry and have children at rates equal to or higher than the general population (Mason, Subedi, & Davis, 2007). For example, data from 5,877 respondents completing the National Comorbidity Survey indicate that 66.8% of women and 58.0% of men with severe affective disorders and 61.8% of women and 55.2% of men with psychotic disorders are parents, compared to 62.4% of women and 52.9% of men without psychiatric disorders (Nicholson, Biebel, Katz-Leavy, & Williams, 2002).

The lack of high quality treatments for parents living with serious mental illnesses (Nicholson, Hinden, Biebel, Henry, & Katz-Leavy, 2007) represents a serious problem, given the dual demands of parenting and managing a serious mental illness (Boursnell, 2007). Compared to parents without mental illnesses, parents with serious mental illnesses experience higher rates of separation/divorce, unemployment, homelessness, poverty, and single parent status (Mason, Subedi, & Davis, 2007; Nicholson et al., 2004), and fewer than half receive child support or financial assistance from the other parent (Mowbray et al., 2001). Furthermore, mental illness symptoms and medication side effects can sometimes impair the abilities of people living with serious mental illnesses to support and care for children (Campbell et al., 2012; Diaz-Caneja &

Johnson, 2004). Perhaps due to these issues, parents living with serious mental illnesses are about three times more likely than other parents to experience child protective services involvement and/or custody loss, with an estimated 60%-80% losing custody of at least one child (Park, Solomon, & Mandell, 2006).

Given the challenges of being a parent with a serious mental illness, many of these parents likely need intensive parent-supportive treatment (David, Styron, & Davidson, 2011). Unfortunately, treatment barriers at the policy-level and provider-level often prevent parenting from being incorporated into mental health treatment (Maybery & Reupert, 2006; Maybery & Reupert, 2009). With respect to policy barriers, less than one-fourth of states require providers to formally assess the parental status of consumers and/or offer special services for parent consumers (Biebel, Nicholson, Geller & Fisher, 2006). At the provider-level, providers report a lack of time, resources, training, and knowledge about how to serve parent consumers (David et al., 2011; Maybery & Reupert, 2006). Further, providers sometimes erroneously assume that consumers are not parents (Maybery & Reupert, 2009) and/or hold negative attitudes towards parents living with serious mental illnesses (Boursnell, 2007), so these providers fail to address parenting in treatment.

Given such barriers, it is not surprising that a recent study in the US identified only 23 programs designed to help those with serious mental illnesses parent effectively (Nicholson et al., 2007), and none were evidence-based practices (EBPs) for serious mental illnesses (e.g., Supported Employment, Assertive Community Treatment). Moreover, there is limited research on outcomes for parents living with serious mental illnesses being treated by EBPs. Thus, to better understand how EBPs support parents living with serious mental illnesses, we previously surveyed Assertive Community Treatment (ACT) team providers to evaluate team policies and

practices for treating parent consumers (White & McGrew, 2013). ACT was selected because it has strong research support and is implemented widely as an EBP for individuals with serious mental illnesses and a history of intensive service use (Bond et al., 2001). However, ACT neither emphasizes the role of parenting in its treatment model, nor has it been rigorously evaluated for its effectiveness in meeting the needs of parent consumers (Bond et al., 2001; Gewurtz, Krupa, Eastabrook, & Horgan, 2004).

To understand ACT services for parent consumers, we surveyed ACT providers about the prevalence of parent consumers receiving ACT, treatment services to support parent consumers, and attitudes about parent consumers (White & McGrew, 2013). Although most providers reported being comfortable discussing parenting with consumers, about 80% of providers endorsed negative or mixed attitudes about parenting living with serious mental illnesses, and only about 20% belonged to ACT teams that offered specific programs for parent consumers. Overall, findings indicated that ACT may not be adequately supporting parent consumers, with the majority of ACT teams failing to provide tailored or intensive treatment services for parents (White & McGrew, 2013). A small subset of ACT teams emerged, however, that were more sensitive to the needs of parent consumers. Recognizing that these teams might serve as good role models for other ACT teams, as well as providers of other EBPs, we decided to examine these teams more closely to identify factors that may contribute to quality treatment for parent consumers. Accordingly, in the current study we classified teams as "high" or "low" for parent-related services, based on ratings of three treatment indicators of sensitivity to parent consumers: identifying parent consumers, discussing parenting issues, and assisting with parenting needs. No specific hypotheses were proposed. Instead, the aim of the study was to identify factors

associated with high levels of parent-supportive treatment, as well as areas in which ACT teams could make changes to better support parent consumers.

Method

Recruitment and Participants

Participants were staff of Assertive Community Treatment (ACT) teams that met at least two self-reported standards for ACT fidelity: caseload-team size ratios of ≤15:1 and total caseload of ≤120 consumers (McGrew, Bond, Dietzen, & McKasson, 1995). Participants were recruited via two methods: (1) face-to-face recruitment at the 26th Annual Assertive Community Treatment Association Conference, and (2) email recruitment of 32 ACT team leaders in Indiana, who were known to the authors but underrepresented at the conference.

Procedure

Informed consent was obtained from all participants. Conference participants completed the survey privately while attending the conference and personally returned completed surveys to the first author. Email participants received emails inviting them to complete the survey privately and email/fax it to the first author. Study procedures were reviewed and approved by the Institutional Review Board at Indiana University-Purdue University in Indiana.

Measure

A 48-item ACT Team Survey was used to measure parent-related policies, treatment services, and provider attitudes among ACT teams. The survey was created for the initial study (White & McGrew, 2013) based on ten items from a 1990 State Mental Health Authority (SMHA) survey (Biebel et al., 2006) and 38 items we developed from a review of the literature. The survey included 16 fill-in-the-blank items assessing ACT consumer demographics and team

characteristics, 16 checkbox items assessing how teams identify parent consumers (e.g., intake, goal setting) and whether teams assist with parenting needs (e.g., daycare, custody), and 8 Likert-scale items assessing the frequency (1=never; 4=always) with which providers discuss parenting issues (e.g., desire to have children, family planning methods). There were also 8 open-ended qualitative items: 3 team services items (e.g., How do you address parenting issues with consumers?) and 5 provider attitudes items (e.g., What do you think are the biggest challenges to addressing parenting issues with consumers? How do you think parenting affects mental health?). A full copy of the survey is available from the first author.

Data Analysis

Quantitative analysis. Data were examined for outliers, missing values, and non-normal variable distributions (skewness > 5; kurtosis > 3). Three variables (i.e. other race prevalence, unsure of parental status prevalence, and want children prevalence) exhibiting non-normality were log-transformed before analysis. Descriptive statistics (e.g., frequency, mean, standard deviation, range, etc.) for the sample were calculated. Providers belonging to the same team were identified via team identification numbers. When multiple members of the same ACT team participated, the team leader or provider with the most data was selected as the representative responder for the team. Teams were then divided into parent-sensitive and non-sensitive teams for each of the following parent-related service indicators: identifying parental status, discussing parenting needs, and assisting with parenting needs.

Identifying parental status. Providers were asked to indicate whether their team used any of the following five methods for identifying parent consumers: formally ask during intake, ask during annual assessment(s)/chart updates, discuss during treatment goal planning/setting, informally find out during treatment, or use other methods. Providers were prompted to describe

the "other" methods. The number of methods teams utilized was summed for a total score, ranging from 0 (e.g., do not find out about parenting) to 5 (e.g., use all 5 methods). A median split was used to group teams; teams at or above the median of 3 methods were classified as "parent-identification sensitive" teams and teams using ≤2 methods were classified as "parent-identification non-sensitive."

Discussing parenting issues. Providers were asked to rate how frequently (never=1 to always=4) they discuss the following parent-related issues: desire to be in a committed relationship, being in a sexual relationship, desire to have children, family planning, safe sexual practices, parenting responsibilities, parenting problems, and custody. An exploratory factor analysis using principal axis factoring with varimax rotation was conducted to determine the number of domains captured by the eight issues. Results indicated that two and three factor solutions produced conceptually indistinct factors that were less robust psychometrically than a one factor solution. Internal consistency (Cronbach's alpha = .88) was highest when all eight issues were treated as a single domain, so the items were collapsed into a single construct called discussing parenting issues. Providers' ratings across the eight issues were averaged for a mean score. A median split was used; teams at or above the median of 2.4 were classified as "parent-discussion sensitive" and teams below the median were classified as "parent-discussion non-sensitive."

Assisting with parenting needs. Providers were asked whether their team provided assistance with the following parenting needs: daycare, court/custody, food, medical care, housing, transportation, clothing/toys, discipline, communication, and schooling. The number of needs was summed to produce a total score, ranging from 0 (e.g. assistance with no needs) to 10 (e.g. assistance with all 10 needs). A median split was used; teams at or above the median of 4

parenting needs were classified as "parent-assistance sensitive" and teams assisting with less than 4 needs were classified as "parent-assistance non-sensitive." As a manipulation check, individual items within each indicator were examined to confirm accurate division of teams via median split. Significant results were found for most individual items, confirming appropriate division of teams.

Data was analyzed at both the team-level and individual-level. For team-level analyses, parent-sensitive and non-sensitive teams were directly compared to identify significant differences on the following variables: team characteristics, caseload characteristics, and provision of special programs (yes/no) for parent consumers (See Tables 1-3 for all variables). T-tests were used to identify significant differences for continuous variables and chi-square tests (χ^2) for categorical variables. To ensure statistical independence, only the representative responder for each unique ACT team was included in team-level analyses.

For individual-level analyses, providers' responses to the open-ended qualitative items were coded by response category (See qualitative analysis below). The number of providers with answers falling in each category was calculated. To identify significant differences between parent-sensitive and non-sensitive teams, the number of providers from parent-sensitive teams was compared to the number of providers from non-sensitive teams who gave responses falling within the same category. Comparisons were conducted via a series of 2 (parent-sensitive vs. non-sensitive team) x 2 (response category present vs. absent) chi-square tests. Some of the 2 x 2 chi-square tests had small cell numbers ($\leq$5), so Fisher's exact test was used as the estimate of probabilities for all chi-square tests. Since members of the same ACT team could hold different attitudes and provide different types of responses, all providers (i.e., members from the same team) were involved in the individual-level analyses.

Qualitative analysis. The first author and a research assistant read through provider responses to open-ended items and identified common answers and emergent categories using a content analysis approach (Ryan & Bernard, 2000). Preliminary categories were identified, tested on fresh sets of responses, and modified using an iterative approach to determine the final categories. Response categories not mentioned by at least 5% of the sample (i.e., ≤4 participants) were combined with existing categories or folded into the "other" category. The final codebook contained 56 categories, with 12 categories for the services questions and 44 categories for the attitude questions. Complex, multi-part responses were coded under more than one category. To ensure reliability, two raters independently coded all responses and met to resolve discrepancies and reach consensus. Inter-rater reliability, as indexed by intraclass correlation (ICC) greater than .60, was acceptable for most (92.9%) response categories (White & McGrew, 2013).

Results

Sample

After dropping 9 participants for either failing to meet ACT inclusion criteria (n=8) or missing data (n=1), the sample consisted of 73 providers from 67 ACT teams located in 25 states and one Canadian province. Providers held a variety of roles, including social worker (27.4%), psychologist/therapist (11.0%), nurse (9.6%), substance abuse specialist (9.6%), and multiple roles (13.7%). Slightly less than half (46.6%) were team leaders. The average caseload size was 65.6 consumers (range 2–105) and caseload-team size ratio was 7.1:1 (range 1.5:1–12.5:1). Caseload race/ethnicity was distributed bi-modally, with 26 teams serving primarily Caucasian consumers (80% or higher) and 22 teams serving primarily racial/ethnic minority consumers (80% or higher). Providers identified 34.5% (N=561 of 1628) of female consumers as mothers and 10.4% (N=229 of 2206) of male consumers as fathers. Twelve teams (17.9%) reported

regular provision of special programs or services for parent consumers, such as parenting skills classes, psychoeducation, and family therapy (See White & McGrew, 2013)

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Identifying Parental Status

Providers reported using an average of 2.4 methods to identify parent consumers (SD=1.2, median=2.0, range=1-5). Using the median of 3 methods, 29 teams were classified as parent-identification sensitive and 38 teams were parent-identification non-sensitive. As shown in Table 1, parent-identification sensitive teams reported spending significantly more time than non-sensitive teams discussing committed relationships with consumers ($t=2.04$, $p<.01$), were significantly more likely to assist consumers with parent-child communication issues ($\chi^2=6.11$, $p=.01$), and reported a lower prevalence of female consumers ($t=-2.00$, $p=.05$) and mothers ($t=-2.27$, $p=.03$). Parent-identification sensitive teams were not significantly different than non-sensitive teams on any other variables. Results from the individual-level analysis revealed no significant differences regarding responses to open-ended qualitative items for providers belonging to parent-identification sensitive teams versus providers from non-sensitive teams.

Discussing Parenting Issues

Providers reported discussing parenting issues (1=never, 4=always) occasionally to often (M= 2.5, SD=0.5, range=1-4). Using the median of 2.4, 28 teams were classified as parent-discussion sensitive and 39 teams were parent-discussion non-sensitive. As shown in Table 2, parent-discussion sensitive teams were more likely than non-sensitive teams to identify consumers' parental status during goal planning/setting ($\chi^2=3.76$, $p=.05$) and to provide assistance with parent-related needs ($t=3.28$, $p<.01$), including housing ($\chi^2=5.09$, $p=.02$), daycare ($\chi^2=8.18$, $p<.01$), and parent-child communication ($\chi^2=10.61$, $p<.01$). Parent-discussion sensitive

teams also had larger caseload sizes (t=2.16, p=.03), team sizes (t=3.68, p<.01), and reported lower prevalence of consumers in which they were unsure if they wanted to have children (t=-2.48, p=.02). No other variables emerged as significant at the team-level.

With respect to open-ended qualitative items, results of the individual-level analysis revealed that significantly fewer providers from parent-discussion sensitive teams reported that comfort with addressing parenting depends upon provider training (χ^2=7.60, Fisher's p<.01) and that one advantage of addressing parenting with consumers is the potential to improve parenting skills/abilities (χ^2=4.24, Fisher's p<.05).

Assisting with Parenting Needs

Providers reported assisting consumers with an average of 3.4 needs (SD=2.3, median=3, range=0-10). Using the median of 4 needs, 30 teams were classified as parent-assistance sensitive and 37 teams were parent-assistance non-sensitive. As shown in Table 3, providers from parent-assistance sensitive teams reported spending more time than other providers discussing parenting issues overall (t=-1.83, p<.05), specifically parenting responsibilities (t=2.51, p=.02), parenting problems (t=2.01, p<.05), and custody (t=2.39, p=.02). Such sensitive teams were also more likely to offer special programs for parent consumers (χ^2=5.16, p=.02). Further, results revealed that parent-assistance sensitive teams were more likely than non-sensitive teams to have larger caseloads (t=2.59, p=.01), and served significantly more African American consumers (t=2.89, p<.01), fewer Caucasian consumers (t=-2.62, p=.01), and more consumers who wanted children (t=1.89, p=.04).

With respect to provider responses to open-ended items, results from the individual-level analyses showed that significantly more providers from parent-assistance sensitive teams reported that mental illness negatively impacts parenting by causing problems for consumers'

children (χ^2=3.84, Fisher's p<.05) and that one advantage to addressing parenting with consumers is the potential to improve parent-child relationships (χ^2=7.87, Fisher's p<.01).

Discussion

This is one of very few research studies to directly assess how an evidence-based practice for adults with serious mental illnesses treats parent consumers, and the first study to directly examine "parent sensitive" Assertive Community Treatment (ACT) teams, i.e., those utilizing policies and services that support parent consumers. Although study findings are largely exploratory and descriptive, several significant differences between parent-sensitive and non-sensitive teams were identified, using three treatment indicators of increasing parent-related services (i.e., identifying parental status, discussing parenting issues, and assisting with parenting needs). Thus, the study achieved its primary aim of identifying factors associated with greater provision of parenting supports and services, with the goal of using study findings to determine how ACT teams can better support parent consumers in the future.

Identifying parental status. The most basic indicator of parent sensitivity used in the study was identifying consumers' parental status. Providers from parent-identification sensitive teams reported spending significantly more time discussing committed relationships with consumers and were more likely to help with parent-child communication issues. Such results are reasonable, since providers who ask about the parental status of consumers should presumably be more likely to do something with this knowledge, such as talking about parent-related issues and unmet needs. However, identifying consumers as parents did not significantly impact provider behavior, given that providers on parent-sensitive teams were not more likely to discuss any of the other seven parenting issues or assist with any of the other nine parenting

needs. Thus, while asking about parental status appears to be related to modest parent-supportive treatment, services are not consistent or intensive. Providers must therefore *act* upon their knowledge of parental status to incorporate parenting into actual services (Mowbray et al., 2001).

Discussing parenting issues. The second indicator of parent sensitivity used in this study was frequency of discussing parenting issues with consumers. This treatment indicator revealed several interesting differences between parent-sensitive ACT teams and other teams, such as significantly larger team sizes and caseloads among parent-sensitive teams. One potential explanation for this finding is that teams with more members have more time, resources, and/or trained staff to address parenting issues, resulting in higher frequency of parenting discussions with consumers. Alternatively, larger caseloads may entail a greater number of parent consumers and/or higher demand for parenting services, resulting in higher frequency of parenting discussions. While either explanation is possible, it is important to note that the caseload-team size ratio was not significantly different, so the mean number of consumers per provider was consistent across teams. Thus, despite similar caseload demands, providers from parent-sensitive teams reported spending significantly more time discussing parent-related issues with consumers than other teams. Although reasons for these differences are unclear, prior research suggests several possibilities, including team leaders who emphasize parenting (Maybery & Reupert, 2009), extensive training in family planning and parenting issues (Maybery & Reupert, 2009), effective peer specialists and/or peer support (David et al., 2011), and/or more financial resources to address parenting challenges in treatment (Biebel et al., 2006).

Besides team characteristics, other variables found to differentiate parent-discussion sensitive and non-sensitive teams included identifying parental status and assisting with parent-related needs. Providers from parent-sensitive teams were more likely to find out about parental

status during goal planning/setting. It is likely that goal planning/setting presents a good opportunity to discuss parenting, since becoming a parent is a meaningful and common goal for many adults (Boursnell, 2007; Diaz-Caneja & Johnson, 2004). Once the topic of parenting is broached during goal setting, it likely results in higher frequency of parent-related discussions altogether. Providers who spend more time talking about parenting with consumers are likely to have better knowledge and understanding of consumers' family planning goals (Biebel et al., 2006; Howard & Hunt, 2008). It is not surprising, therefore, that providers from parent-discussion sensitive teams reported lower prevalence of consumers for whom they were unsure of future plans to have children. These providers also indicated a higher likelihood of aiding consumers with parent-related needs, including housing, daycare, and parent-child communication difficulties. Again, these findings seem reasonable, given that more frequent discussion of parenting concerns is likely tied to more frequent identification of parenting needs and increased provider awareness of needs, which should lead to more efforts to meet those needs.

Although parent-discussion sensitive teams provided more assistance than other teams, the help was limited to three needs. Discussing parenting issues was not related to increased likelihood of assistance with other critical parent-related needs, like court/custody, medical care of children, and discipline of children. Clearly, discussing parenting needs is a helpful and needed step in providing assistance, but not a sufficient step in guaranteeing assistance. Thus, providers need to not only talk to consumers about being a parent, but also *act* upon this knowledge with actual treatment services (Nicholson et al., 2002).

Assisting with parenting needs. The third treatment indicator of parent sensitivity used in this study was direct assistance with parenting issues. Dividing teams based on this treatment

indicator yielded results paralleling those found using the discussing parenting issues indicator, including larger consumer caseloads among parent-sensitive teams, but similar caseload-team size ratios across teams. However, some notable findings emerged, in that providers from parent-assistance sensitive teams reported serving more African American consumers and fewer Caucasian consumers. These findings fit well within the literature regarding race, parenting, and serious mental illnesses (Park et al., 2006; Vesga-Lopez et al., 2008). Specifically, ethnic minorities tend to become parents at younger ages, have more children (Vesga-Lopez et al., 2008), and are more likely to be of lower socioeconomic status than Caucasians (Williams, 1999). Further, families involved with Child Welfare Services Agencies are disproportionately African American and parents with disabilities, like mental illness, experience discrimination during parental rights proceedings (Park et al., 2006). For all these reasons, African American consumers of ACT likely face heighted discrimination and may have greater needs for parent-related assistance. ACT teams serving caseloads with higher prevalence of African American consumers may simply be responding to the increased demands for assistance with parent-related difficulties among African American consumers, resulting in more provision of services than teams serving predominately Caucasian consumers.

In addition, providers from parent-assistance sensitive teams reported spending significantly more time discussing parenting issues with consumers, especially parenting responsibilities, parenting problems, and court/custody. These findings make sense, given that providers should ideally discuss problems before providing assistance with them. As noted earlier, frequent discussion of parenting difficulties is likely tied to provider recognition of unmet needs and assistance with these needs (Howard & Hunt, 2008; Mowbray et al., 2001). Furthermore, parent-assistance sensitive teams were more likely than other teams to offer

specific programs/services for parent consumers, such as family therapy, parenting classes, and psychoeducation. In fact, 75% of the ACT teams that reportedly offer specific programs were classified as parent-assistance sensitive teams. These results suggest that certain ACT teams may follow a "parent-sensitive" treatment philosophy, in which providers commit to assisting with parenting needs and offering specialized programs for parents living with serious mental illnesses.

Interesting findings. Provider estimates of the prevalence of parent consumers failed to differentiate parent-sensitive and non-sensitive ACT teams, using any of the treatment indicators. Given that ACT is an individually-tailored treatment (Bond et al., 2001), one might expect that teams serving a higher prevalence of parents would be more likely to respond to parent-related needs and provide more parent-focused services. In contrast, parent-sensitive teams did not report significantly higher caseloads of parent consumers, yet still provided more parent supportive services. These findings are somewhat unexpected, but given the lack of data on ACT services for parents living with serious mental illnesses (Gewurtz et al., 2004), conclusions based on these findings are tentative and more research is needed to replicate this study.

Qualitative responses. Provider responses to the open-ended qualitative items were generally similar in valence and content, regardless of the teams to which providers belonged. Although previous research has found that negative attitudes sometimes prohibit providers from addressing parenting (Maybery & Reupert, 2009), we failed to find strong evidence of a relationship between identifying parental status and attitudes about parenting with a serious mental illness. Furthermore, previous research has shown that increased awareness and exposure to parents living with serious mental illnesses often leads to more positive attitudes among providers (Spagnolo, Murphy, & Librera, 2008); however, the attitudes of providers on teams

that spent more time discussing parenting and/or providing assistance were not significantly more positive than other providers. It is possible that provider attitudes truly differ, but the present study may have failed to find differences due to measurement limitations, since attitudes were inferred from open-ended qualitative items rather than validated attitude measures. True differences in provider attitude may have emerged, had formal attitude scales been used (Link, Yang, Phelan, & Collins, 2004).

Limitations

Several limitations should be briefly noted. First, the study utilized a convenience sample of ACT providers who were non-randomly selected, so results may not be generalizable to all ACT teams. Second, the study is limited to self-reported information, with no mechanism to ensure participants responded accurately and truthfully to survey questions. While it seems unlikely that providers intentionally misreported information, respondents may have given unconsciously biased answers regarding treatment services and attitudes about parent consumers, in an effort to appear as good providers. Third, the eight issues included within "discussing parenting issues" were treated as a single construct in the present study, based on results of a factor analysis showing the issues fit best within a single domain. Prior studies have separated these issues into different parent-related domains, such as sexuality, family planning, and parenthood (Howard & Hunt, 2008; McLennan & Ganguli, 1999). Results may have been different had the issues been separated into different domains. Future research is needed to better define the construct of "parenting issues" and appropriate ways to examine parenting issues.

Finally, multiple comparisons were conducted in the study, which introduces alpha inflation and the possibility of Type 1 errors. Although we used Fisher's exact test as a more stringent estimate for p-values, we did not employ any other type of correction to control for

alpha inflation. We intentionally chose not to use an adjustment because the study was unique and examined a largely unexplored topic, so we wanted to ensure detection of all possible significant findings, despite the heightened risk of Type 1 errors. Future studies will be needed to replicate results and ensure that current findings are not simply Type 1 errors.

Conclusions and Implications for Practice

This study revealed several key factors related to parent-sensitivity and provision of parent-focused services among ACT teams, including team and caseload size, race/ethnicity of consumers, identifying parental status, discussing parenting, and offering special parent-focused programs. Although this study was exploratory in nature, several recommendations for future practice can be made:

1. Identifying the parental status of consumers was related to a modest increase in treatment services for parents living with serious mental illnesses. Thus, a system-wide mandate requiring all providers to ask about and record the parental status of consumers with serious mental illnesses could serve as the first step toward better treatment of parents living with serious mental illnesses. Such a policy would ideally raise awareness and initiate dialogue among providers about the parenthood of consumers, resulting in unmet parent-related needs being potentially identified.

2. Regularly discussing parenting with consumers, perhaps during goal setting and/or treatment planning, is needed to ensure parenting needs are incorporated into treatment services. Provider openness and commitment to discussing parenting not only increases the likelihood that parenting needs will be included in treatment planning, but also serves notice to both providers and consumers that parenting is a legitimate and important area of consumers' lives.

3. Direct assistance with parent-related needs emerged as the best indicator of "parent sensitivity." Teams that provided assistance with parenting needs were not only more likely to inquire about parental status and discuss parenting issues, but also more likely to offer specialized programs for parents. Thus, actions (providing assistance) speak louder than words (inquiring about parental status or discussing parenting) in defining parent-sensitive treatment for consumers with serious mental illnesses. Given such findings, providers are encouraged to directly assist with parent-related needs and offer parent-supportive services, such as parent support groups, parenting classes, and family therapy.

References

Biebel, K., Nicholson, J., Geller, J., & Fisher, W. (2006). A national survey of state mental health authority programs and policies for clients who are parents: A decade later. *Psychiatric Quarterly, 77*(2), 119-128.

Bond, G.R., Drake, R.E., Mueser, K., & Latimer, J. (2001). *Disease Management & Health Outcomes, 9*(3), 141-159

Boursnell, M. (2007). The silent parent: Developing knowledge about the experiences of parents with mental illness. *Child Care in Practice, 12*(3), 251-260.

Campbell, L., Hanlon, M. C., Poon, A., Weng C., Paolini, S., Stone, M., Galletly, C., Stain, H. J., & Cohen, M. (2003). The experiences of Australian parents with psychosis: the second Australian national survey of psychosis. *The Australian and New Zealand Journal of Psychiatry, 46(9), 890-900.*

David, D., Styron, T., & Davidson, L. (2011). Supported parenting to meet the needs and concerns of mothers with severe mental illness. *American Journal Of Psychiatric Rehabilitation, 14*(2), 137-153.

Diaz-Caneja, A., & Johnson, S. (2004). The views and experiences of severely mentally ill mothers - A qualitative study. *Social Psychiatry and Psychiatric Epidemiology, 39*(6), 472-482.

Gewurtz, R., Krupa, T., Eastabrook, S., & Horgan, S. (2004). Prevalence and characteristics of parenting among people served by assertive community treatment. *Psychiatric Rehabilitation Journal, 28*(1), 63-65.

Howard, L.M., & Hunt, K. (2008) The needs of mothers with severe mental illness: A comparison of assessments of needs by staff and patients. *Archives of Women's Mental Health, 11*, 131-136.

Link, B.G., Yang, L.H., Phelan, J.C., & Collins, P.Y. (2004). Measuring mental illness stigma. *Schizophrenia Bulletin*, *30*(3), 511-541.

Mason, C., Subedi, S. & Davis, R. (2007). Clients with mental illness and their children: Implication for clinical practice. *Issues in Mental Health Nursing, 28*, 1105-1123.

Maybery, D.J., & Reupert, A.E. (2009). Parental mental illness: A review of barriers and issues for working with families and children. *Journal of Psychiatric and Mental Health Nursing, 16*, 784-791.

Maybery, D.J., & Reupert, A.E. (2006). Workforce capacity to respond to children whose parents have a mental illness. *Australian and New Zealand Journal of Psychiatry, 40*, 657-664.

McGrew, J., Bond, G., Dietzen, L., & McKasson, M. (1995). A multisite study of client outcomes in assertive community treatment. *Psychiatric Services, 46*(7), 696-701.

McLennan, J. D., & Ganguli, R. (1999). Family planning and parenthood needs of women with severe mental illness: clinicians' perspective. *Community Mental Health Journal*, *35*(4), 369-380.

Mowbray, C., Oyserman, D., Bybee, D., MacFarlane, P., & Rueda-Riedle, A. (2001). Life circumstances of mothers with serious mental illnesses. *Psychiatric Rehabilitation Journal, 25*(2), 114-123.

Nicholson, J., Biebel, K., Katz-Leavy, J., & Williams, V.F. (2002). The prevalence of parenthood in adults with mental illness: Implications for state and federal policy, programs, and providers. *Psychiatry Publications and Presentations, 153,* 120-137.

Nicholson, J., Hinden, B., Biebel, K., Henry, A., & Katz-Leavy, J. (2007). A qualitative study of programs for parents with serious mental illness and their children: Building practice-based evidence. *Journal of Behavioral Health Services, 34(*4), 395-413.

Park, J., Solomon, P., & Mandell, D. (2006). Involvement in the child welfare system among mothers with serious mental illness. *Psychiatric Services*, *57*(4), 493-497.

Ryan, G.W., & Bernard, H.R. (2000). Data management and analysis method. In Norman K. Denzin & Yvonna S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed) (pp.769-802). Thousand Oaks, CA: Sage Publications, Inc.

Spagnolo, A.B., Murphy, A.A., & Librera, L. (2008). Reducing stigma by meeting and learning from people with mental illness. *Psychiatric Rehabilitation Journal, 31*(3), 186-193.

Vesga-Lopez, O., Blanco, C., Keyes, K., Olfson, M., Grant, B. F., & Hasin, D. S. (2008). Psychiatric disorders in pregnant and postpartum women in the United States. *Archives of General Psychiatry*, *65*(7), 805-815.

White, L.M**.,** & McGrew, J.H. (2013). Parents served by assertive community treatment: prevalence, treatment services, and provider attitudes. *Journal of Behavioral Health Services & Research,* 1-16.

Williams, D. (1999). Race, socioeconomic status, and health: The added effects of racism and discrimination. *Annals of the New York Academy of Sciences*, *896*(1), 173-188.

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Table 1

Identifying Parental Status: Parent-sensitive ACT Teams versus Non-sensitive Teams

	Parent-identification sensitive teams (N=29)	Parent-identification non-sensitive (N=38)	Comparison
Discussing Parenting Issues*	Mean (SD)	Mean (SD)	t-test, p-value
Safe Sex	1.9 (0.8)	1.8 (0.8)	0.56, p=.58
Committed Relationship	1.7 (0.7)	1.3 (0.6)	**2.04, p<.01**
Sexual Relationship	1.5 (0.6)	1.3 (0.7)	1.13, p=.26
Desire to Have Children	1.1 (0.6)	1.2 (0.6)	-0.58, p=.56
Family Planning	1.5 (0.9)	1.5 (0.7)	-0.09, p=.93
Parenting Responsibilities	1.6 (0.7)	1.5 (0.8)	0.28, p=.78
Parenting Problems	1.7 (0.8)	1.5 (0.8)	0.92, p=.36
Custody	1.4 (0.7)	1.3 (0.8)	0.83, p=.41
Total[a]	1.5 (0.5)	1.4 (0.5)	0.89, p=.38
Assisting with Parenting Needs**	Frequency (%)	Frequency (%)	Chi-square, p-value
Daycare	7 (53.8%)	6 (46.2%)	0.73, p=.39
Food	11 (37.9%)	18 (62.1%)	-0.60, p=.44
Medical Needs	9 (50.0%)	9 (50.0%)	0.45, p=.50
Transportation	7 (46.7%)	8 (53.3%)	-0.09, p=.76
Discipline	9 (52.9%)	8 (47.1%)	0.87, p=.35
Custody/Court	17 (39.5%)	26 (60.5%)	-0.69, p=.41
Housing	10 (47.6%)	11 (52.4%)	-0.23, p=.63
Clothing/Personal Items	11 (39.3%)	17 (60.7%)	-0.31, p=.58
Schoolwork	4 (80.0%)	1 (20.0%)	2.97, p=.09
Parent-Child Communication	21 (56.8%)	16 (43.2%)	**6.11, p=.01**
Total[b]	3.65 (2.9)	3.16 (2.5)	0.77, p=.45
Specialized Programs (Y/N)	8 (66.7%)	4 (33.3%)	3.53, p=.06
Team Leader (Y/N)	12 (36.4%)	21 (63.6%)	-1.54, p=.22
Urban (vs Rural)	14 (35.0%)	26 (65.0%)	-1.83, p=.18
Team Leader is Social Worker	11 (36.7%)	19 (63.3%)	-0.46, p=.50
Caseload Characteristics	Mean (SD)	Mean (SD)	t-test, p-value
Caseload Size	66.0 (29.2)	65.3 (22.8)	0.11, p=.91
Female Prevalence	36.1% (1.7)	44.3% (1.5)	**-2.00, p=.05**
Caucasian Prevalence	54.4% (33.4)	60.1% (31.9)	-0.68, p=.50
African American Prevalence	38.3% (28.4)	27.1% (28.0)	0.16, p=.87
Other Race Prevalence	8.4% (19.7)	7.3% (15.5)	0.87, p=.39[c]
Parent Prevalence	16.2% (0.1)	20.2% (0.2)	-1.02, p=.31
Mother Prevalence	9.7% (10.9)	17.8% (17.3)	**-2.27, p=.03**
Unsure of Consumers' Parental Status Prevalence	3.3% (11.1)	9.9% (19.5)	-1.60, p=.12[c]
Consumers Want Children Prevalence	11.2% (16.4)	16.6% (26.7)	-0.01, p=.99[c]
Unsure if Consumers Want Children Prevalence	13.5% (22.4)	26.5% (36.6)	-1.35, p=.19
Team Size	10.3 (2.9)	9.4 (3.4)	-0.98, p=.33
Caseload-Team Size Ratio	7.1 (2.5)	7.1 (2.1)	0.07, p=.94

Note: * Mean frequency rating (1=never; 4=always). ** Number (percentage) of teams endorsing item.

[a] Mean frequency rating (across 8 issues). [b] Mean number of items endorsed (out of 10).

[c] Log-transformed variable.

Table 2

Discussing Parenting Issues: Parent-sensitive ACT Teams versus Non-sensitive Teams

	Parent-discussion sensitive teams (N=28)	Parent-discussion non-sensitive teams (N=39)	Comparison
Identifying Parental Status*	Frequency (%)	Frequency (%)	Chi-square, p-value
During Intake	28 (44.4%)	35 (55.6%)	-3.05, p=.08
Annual Assessments	11 (42.3%)	15 (57.7%)	-0.01, p=.95
Goal Planning/Setting	16 (55.2%)	13 (44.8%)	**3.76, p=.05**
Informally during Treatment	15 (50.0%)	15 (50.0%)	1.51, p=.22
Other	4 (40.0%)	6 (60.0%)	-0.02, p=.90
Total[a]	2.64 (1.4)	2.15 (1.0)	1.76, p=.08
Do Not Ask	0 (0.0%)	1 (100.0%)	-0.73, p=.39
Assisting with Parenting Needs*	Frequency (%)	Frequency (%)	Chi-square p-value
Daycare	10 (76.9%)	3 (23.1%)	**8.18, p<.01**
Food	15 (51.7%)	14 (48.3%)	2.07, p=.15
Medical Needs	10 (55.6%)	8 (44.4%)	1.92, p=.17
Transportation	9 (60.0%)	6 (40.0%)	2.63, p=.11
Discipline	10 (58.8%)	7 (41.2%)	2.72, p=.10
Custody/Court	20 (46.5%)	23 (53.5%)	-1.10, p=.29
Housing	13 (61.9%)	8 (38.1%)	**5.09, p=.02**
Clothing/Personal Items	15 (53.6%)	13 (46.4%)	2.74, p=.10
Schoolwork	3 (60.0%)	2 (40.0%)	0.74, p=.39
Parent-Child Communication	22 (59.5%)	15 (40.5%)	**10.61, p<.01**
Total[b]	4.54 (2.7)	2.54 (2.2)	**3.28, p<.01**
Specialized Programs (Y/N)	7 (58.3%)	5 (41.7%)	1.84, p=.18
Team Leader (Y/N)	15 (45.5%)	18 (54.5%)	-0.56, p=.45
Urban (vs Rural)	13 (43.3%)	17 (56.7%)	-1.15, p=0.28
Team Leader is Social Worker	18 (45.0%)	22 (55.0%)	-1.08, p=0.30
Caseload Characteristics	Mean (SD)	Mean (SD)	t-test, p-value
Caseload Size	73.4 (24.2)	60.1 (25.3)	**2.16, p=.03**
Female Prevalence	41.8% (0.1)	40.5% (0.2)	0.30, p=.77
Caucasian Prevalence	54.4% (35.1)	60.3% (30.5)	-0.71, p=.48
African American Prevalence	30.0% (31.3)	25.9% (25.7)	0.57, p=.57
Other Race Prevalence	14.8% (24.2)	9.3% (12.5)	0.59, p=.56[c]
Parent Prevalence	19.5% (12.9)	17.9% (16.6)	0.41, p=.69
Mother Prevalence	14.7% (15.1)	14.4% (15.9)	0.07, p=.95
Unsure of Consumers' Parental Status Prevalence	7.2% (20.1)	7.3% (15.1)	0.59, p=.56[c]
Consumers Want Children Prevalence	19.6% (27.6)	10.5% (18.4)	0.42, p=.68[c]
Unsure if Consumers Want Children Prevalence	8.7% (12.5)	27.7% (36.8)	**-2.48, p=.02**
Team Size	11.5 (3.5)	8.6 (2.5)	**3.68, p<.01**
Caseload-Team Size Ratio	6.8 (2.2)	7.3 (2.3)	-0.79, p=.43

Note: * Number (percentage) of teams endorsing item.

[a] Mean number of items endorsed (out of 5). [b] Mean number of items endorsed (out of 10).

[c] Log-transformed variable.

Table 3

Assisting with Parenting Needs: Parent-sensitive ACT Teams versus Non-sensitive Teams

	Parent-assistance sensitive teams (N=30)	Parent-assistance non-sensitive teams (N=37)	Comparison
Identifying Parental Status*	Frequency (%)	Frequency (%)	Chi-square, Sig. value
During Intake	29 (46.0%)	34 (54.0%)	-0.67, p=.41
Annual Assessments	11 (42.3%)	15 (57.7%)	-0.11, p=.75
Goal Planning/Setting	13 (44.8%)	16 (55.2%)	-0.04, p=.99
Informally during Treatment	15 (50.0%)	15 (50.0%)	0.60, p=.44
Other	7 (70.0%)	3 (30.0%)	3.02, p=.08
Total[a]	2.47 (1.3)	2.24 (1.2)	0.76, p=.45
Do Not Ask	0 (0.0%)	1 (100.0%)	-0.82, p=.36
Discussing Parenting Issues**	Mean (SD)	Mean (SD)	t-test, Sig. value
Safe Sex	1.9 (0.8)	1.8 (0.7)	0.93, p=.36
Committed Relationship	1.5 (0.7)	1.5 (0.6)	0.26, p=.80
Sexual Relationship	1.4 (0.7)	1.3 (0.6)	0.58, p=.57
Desire to Have Children	1.2 (0.6)	1.1 (0.6)	0.96, p=.34
Family Planning	1.5 (0.8)	1.5 (0.8)	0.38, p=.71
Parenting Responsibilities	1.8 (0.7)	1.3 (0.7)	**2.51, p=.02**
Parenting Problems	1.8 (0.7)	1.4 (0.7)	**2.01, p=.05**
Custody	1.6 (0.7)	1.2 (0.8)	**2.39, p=.02**
Total[b]	1.6 (0.5)	1.4 (0.5)	**1.83, p=.05**
	Frequency (%)	Frequency (%)	Chi-square, Sig. value
Specialized Programs (Y/N)	9 (75.0%)	3 (25.0%)	**5.16, p=.02**
Team Leader (Y/N)	14 (42.4%)	19 (57.6%)	-0.06, p=0.8
Urban (vs Rural)	10 (33.3%)	20 (66.7%)	**-3.38, p=0.07**
Team Leader is Social Worker	20 (50.0%)	20 (50.0%)	1.22, p=0.27
Caseload Characteristics	Mean (SD)	Mean (SD)	t-test, p-value
Caseload Size	74.3 (21.8)	58.7 (26.5)	**2.59, p=.01**
Female Prevalence	42.3% (14.5)	40.1% (17.1)	0.52, p=.60
Caucasian Prevalence	46.5% (30.9)	67.0% (31.0)	**-2.62, p=.01**
African American Prevalence	38.4% (29.4)	19.2% (25.3)	**2.89, p<.01**
Other Race Prevalence	11.5% (17.5)	11.7% (19.3)	-0.05, p=.96[c]
Parent Prevalence	20.8% (15.2)	16.8 (15.0)	1.01, p=.31
Mother Prevalence	17.0% (17.2)	12.8% (14.0)	1.05, p=.30
Unsure of Consumers' Parental Status Prevalence	7.9% (19.8)	6.8% (14.4)	0.10, p=.92[c]
Consumers Want Children Prevalence	21.7% (29.3)	8.1% (13.2)	**1.89, p=.04**[c]
Unsure if Consumers Want Children Prevalence	17.2% (29.2)	23.7% (33.7)	-0.65, p=.52
Team Size	10.2 (3.1)	9.4 (3.4)	0.85, p=.40
Caseload-Team Size Ratio	7.5 (2.3)	6.8 (2.2)	1.24, p=.22

Note: * Number (percentage) of teams endorsing item. ** Mean frequency rating (1=never; 4=always).

[a] Mean number of items endorsed (out of 5). [b] Mean frequency rating (across 8 issues).

[c] Log-transformed variable.